

SYSTEM AND METHOD FOR PERFORMING HAND-OFFS
BETWEEN INTERNET PROTOCOL (IP) CORE NETWORKS
IN THE WIRELESS DOMAIN

ABSTRACT OF THE DISCLOSURE

A system for performing a hand-off between two IP core networks in the wireless domain includes a source mobility control function (MCF) within a source IP core network that is coupled to a source access network providing service to a mobile unit. The source MCF is coupled to a source bearer path gateway (BPGW) within the source IP core network. The source BPGW communicates bearer traffic associated with the mobile unit between the source access network and a public switched telephone network (PSTN) gateway within the source IP core network. The PSTN gateway communicates the bearer traffic between the source BPGW and a PSTN coupled to the source IP core network. The source MCF is functionally separate from a call agent (CA) within the source IP core network. The CA is also coupled to the source BPGW. The CA sets up a first segment of a bearer path for the bearer traffic between the source BPGW and the PSTN gateway, and the source MCF sets up a second segment of the bearer path for the bearer traffic between the source access network and the source BPGW. A hand-off occurs between the source IP core network and the target IP core network in the wireless domain when the source MCF takes down the second segment and sets up third and fourth segments of the bearer path for the bearer traffic in response to the mobile unit entering a service area of a target access network coupled to a target IP core network. The third segment is between the source BPGW and a target BPGW within the target IP core network that communicates the bearer traffic between the target access network and the source BPGW, and the fourth bearer segment is between the target access network and the target BPGW.